

CLAIMS

What is claimed is:

- 1 1. A method for multicasting a plurality of receiver
2 membership reports containing receiver information for a
3 plurality of multicast source systems, the method comprising
4 the steps of:
5 collecting receiver information for the plurality of
6 multicast source systems;
7 aggregating receiver information for each multicast
8 source system into a respective record;
9 aggregating the plurality of respective records into a
10 single message; and
11 multicasting the single message to a group address.
- 1 2. The method of claim 1, wherein the step of aggregating
2 receiver information further comprises the step of:
3 indexing each respective record using an address
4 associated with each multicast source system.
- 1 3. The method of claim 2, wherein the address is an IP
2 address of each multicast source system.
- 1 4. The method of claim 1, wherein receiver information
2 comprises a source identifier, a multicast group, and a group
3 record.
- 1 5. The method of claim 4, wherein the group record comprises
2 one of Transmit and Hold.
- 1 6. The method of claim 1, further comprising the steps of:
2 accessing a corresponding respective record from the
3 single message; and

4 enabling each multicast source system to respond based
5 upon the receiver information in each corresponding respective
6 record.

1 7. The method of claim 1, wherein the method operates
2 according to a multicast source notification of interest
3 protocol.

1 8. A computer signal embodied in a carrier wave readable by
2 a computing system and encoding a computer program of
3 instructions for executing a computer process performing the
4 method recited in claim 1.

1 9. A system for multicasting a plurality of receiver
2 membership reports containing receiver information, the system
3 comprising:

4 a plurality of multicast source systems for receiving
5 receiver information; and

6 a router for collecting receiver information for the
7 plurality of multicast source systems; aggregating receiver
8 information for each multicast source system into a respective
9 record; aggregating the plurality of respective records into a
10 single message; and multicasting the single message to a group
11 address.

1 10. The system of claim 9, wherein the router indexes each
2 respective record using an address associated with each
3 multicast source system.

1 11. The system of claim 10, wherein the address is an IP
2 address of each multicast source system.

1 12. The system of claim 9, wherein receiver information

2 comprises a source identifier, a multicast group, and a group
3 record.

1 13. The system of claim 9, wherein each multicast source
2 system accesses a corresponding respective record from the
3 single message and responds based upon the receiver
4 information in each corresponding respective record.

1 14. The system of claim 9, wherein multicasting the plurality
2 of receiver membership reports operates according to a
3 multicast source notification of interest protocol.

1 15. An article of manufacture for multicasting a plurality of
2 receiver membership reports containing receiver information
3 for a plurality of multicast source systems, the article of
4 manufacture comprising:

5 at least one processor readable carrier; and
6 instructions carried on the at least one carrier;
7 wherein the instructions are configured to be readable
8 from the at least one carrier by at least one processor and
9 thereby cause the at least one processor to operate so as to:
10 collect receiver information for the plurality of
11 multicast source systems;
12 aggregate receiver information for each multicast source
13 system into a respective record;
14 aggregate the plurality of respective records into a
15 single message; and
16 multicast the single message to a group address.

1 16. The article of manufacture of claim 15, wherein the at
2 least one processor is further caused to operate so as to:
3 index each respective record using an address associated
4 with each multicast source system.

1 17. The article of manufacture of claim 16, wherein the
2 address is an IP address of each multicast source system.

1 18. The article of manufacture of claim 15, wherein receiver
2 information comprises a source identifier, a multicast group,
3 and a group record.

1 19. The article of manufacture of claim 15, wherein the at
2 least one processor is further caused to operate so as to:
3 access a corresponding respective record from the single
4 message; and
5 enable each multicast source system to respond based upon
6 the receiver information in each corresponding respective
7 record.

1 20. The article of manufacture of claim 15, wherein the
2 article of manufacture operates according to a multicast
3 source notification of interest protocol.